



Iowa Department of Transportation

800 Lincoln Way, Ames, IA 50010

515-239-1310

Fax 515-239-1538

Fax Back Immediately

(This Page Only)

To above fax number, ATTN: Jerry B Giebelstein

Internet Bid Proposal Download Acknowledgement

This form must be faxed back to the Iowa Department of Transportation Purchasing Department so your company can receive any notifications or addendums to this proposal. Sealed bids may not be returned by fax. Sealed bids must be returned using the envelope provided or by attaching the label page provided in this package.

Failure to do so, may be cause to disqualify your bid proposal submission.

Proposal No.: 4356

Proposal Description: 10|A38:HD Tool Carrier Wheel Loader 2.5 yd Capacity

Company Name: _____

Contact: _____

Email Address: _____

Address: _____

City/State/Zip: _____

Phone: _____

Fax: _____

Cell Phone: _____

Federal Tax ID: _____

If you have any questions or concerns, please call 515-239-1347 or Email jerry.giebelstein@dot.iowa.gov

		Date Bids Due 12/23/2009	Time of Bid Opening 1:00 PM	Bid Opening Location Iowa DOT Purchasing Office Ames, IA	
Proposal Number 4356	Description 10 A38:HD Tool Carrier Wheel Loader 2.5 yd Capacity				
Contract to Begin 1/13/2010	Date of Completion 7/16/2010		Proposal Guaranty Amount \$0.00		Liquidated Damages \$0.00
Additional Information Contact Jerry Giebelstein	E-Mail Address jerry.giebelstein@dot.iowa.gov		Phone (515) 239-1347		Fax (515) 239-1538
Company Name				Federal Tax ID	
Street Address			City	State	Zip Code
Individual preparing bid (type or print)	E-Mail Address		Phone	Fax	
Will you sell these items/services to political subdivisions within the State of Iowa under the same prices, terms and conditions as specified? <input type="checkbox"/> YES <input type="checkbox"/> NO			Are you a Iowa Targeted Small Business? <input type="checkbox"/> YES <input type="checkbox"/> NO		

GENERAL INFORMATION

This bid package includes the proposal, schedule of prices, standard terms and conditions, supplemental terms, specifications, mailing label and other information you need to prepare your bid. The pages of the document labeled "Bid response" must be typed or completed in ink, signed, and returned in a flat style envelope prior to the bid opening date and time. Please use the furnished mailing label, or indicate on your return bid by marking "Iowa Department of Transportation, proposal number & letting date" on the outside of the return envelope. The bidder may personally deliver, mail, or select a carrier that ensures timely delivery. Faxed bids will not be accepted.

If required, each bid must be accompanied by a proposal guaranty in an accepted form, in the sum indicated above. Refer to the Standard Terms and Conditions for the accepted forms in which the proposal guaranty requirement may be fulfilled. Bids lacking a required proposal guaranty will not be considered for award. If the contractor fails to enter into a formal contract within fifteen (15) days after award is made, the proposal guaranty may be retained by the State.

PROPOSAL STATEMENT

The entire contents of this Proposal, Addendums to the Proposal, Specifications, Supplemental Terms and Conditions, Standard Terms and Conditions, and Schedule of Prices shall become part of the contract.

We promise to enter into a contract within fifteen (15) days after award or forfeit the proposal guaranty furnished herewith.

We promise to furnish all materials, equipment and/or services specified, in the manner and the time prescribed, at prices hereinafter set out.

We certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a bid; that this bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; and that this bid has not been knowingly disclosed prior to the opening of bids to any other bidder or competitor.

We certify that all materials, equipment and/or services proposed meet or exceed the specifications and will be supplied in accordance with the entire contents of this proposal.

We promise to complete the contract within the contract period, or pay any liquidated damages, if stipulated, for each calendar day as set forth in the bid documents.

Signed: _____ Date: _____



Schedule Of Prices

Proposal Number 4356

Letting Date
12/23/2009 1:00 PM

10|A38:HD Tool Carrier Wheel Loader 2.5 yd
Capacity

Group A Tool Carrier Wheel Loader w/2 Options				
Item	Qty	Price	Unit	Shipping Terms
A38	5		Each	FOB Destination/Freight Prepaid
10 A38:HD Tool Carrier Loader As Per Spec. No. 5-A38-1109				AMES MACHINE SHOP, AMES 50010
List Make		Model		
Item	Qty	Price	Unit	Shipping Terms
A38.1	5		Each	None
10 B081: 2.5 Yard Bucket As Per Option A38.1 As Per Option No. A38.1 of Spec No. 5-A38-1109				
List Make		Model		
Item	Qty	Price	Unit	Shipping Terms
A38.2	5		Each	None
10 B078: Pallet Fork Attachment As Per Opt A38.2 As Per Option No. A38.2 of Spec No. 5-A38-1109				
List Make		Model		
Item	Qty	Price	Unit	Shipping Terms
A38.3	2		Each	None
10 B079: Scrap Grapple Bucket As Per Opt A38.3 As Per Option No. A38.3 of Spec No. 5-A38-1109				
List Make		Model		

I HEREBY CERTIFY THAT THIS PROPOSAL MEETS OR EXCEEDS THE MINIMUM REQUIREMENT INCLUDING SPECIFICATIONS AND ADDENDUMS

(Please Print)

COMPANY NAME: _____ PHONE: _____ FAX: _____

ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____

CONTACT PERSON: _____ E-MAIL: _____

SIGNATURE: _____ FED TAX ID: _____

AVAILABILITY AFTER RECEIPT OF P.O. (IN DAYS): _____

I ACKNOWLEDGE RECEIPT OF ADDENDUM NUMBERS: _____

Iowa Department of Transportation

PURCHASING PROPOSAL

Standard Terms and Conditions

Contents of Contract: The entire contents of this proposal shall become a part of the contract or purchase order. In case of a discrepancy between the contents of the contract documents, the following items listed by descending order shall prevail:

- Addendums
- Purchasing Proposal/Schedule of Prices
- Specifications, Plans and Drawings
- Supplemental Terms and Conditions
- Standard Terms and Conditions

For example, if there is a statement in the specifications that contradicts a statement in the Standard Terms and Conditions, the statement in the specifications shall apply.

Preparation of Proposal: All proposals must be completed in every respect and must clearly answer all questions contained in the proposal. Bids must be typed or completed in ink on the forms supplied by the department. **You must sign your bid and seal it in the envelope.** Bids must be received prior to the bid opening date and time. The bidder may personally deliver, mail, or select a carrier that ensures timely delivery

Proposal Guaranty: If required, a proposal guaranty, in the sum listed on the proposal form, can be supplied in one of the following ways: (1) A certified check or credit union certified share draft, cashier's check, or bank draft, drawn on a solvent bank or credit union, may be certified furnished with your bid. Certified checks and certified share drafts shall be drawn and endorsed in the amount indicated. Checks or drafts shall be made payable either to the Iowa Department of Transportation (Iowa DOT) or to the bidder. If payable to the bidder, the check or draft shall be endorsed, without qualifications, to the Iowa DOT by the bidder or his authorized agent. (2) An insurance or surety company may be retained to provide a bond in fulfillment of the proposal guaranty requirement. A properly completed and signed copy of the Proposal Guaranty (Form 131071) must accompany the bid. The Iowa DOT's Proposal Guaranty form must be used, no other forms or formats will be accepted.

Bid Opening: Bid Openings are public and conducted at the Ames complex unless otherwise specified. Proposals received after the time of the bid opening will be returned unopened.

Debarment and Vendor Suspension: By submitting a proposal, the contractor is certifying that it and its Principals and/or subcontractors are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by the State of Iowa or any Federal department or agency.

Communications: Questions concerning this proposal should be directed to the Purchasing Agent listed on the Purchasing Proposal. Inquiries can be written, phoned, or faxed. In all cases, written communication will take precedence over verbal communication.

Acceptance/Rejection: The State of Iowa reserves the right to accept or reject any or all bids and to waive irregularities or technicalities, provided such waiver does not substantially change the offer or provide a competitive advantage to any vendor, in the judgement of the Iowa DOT. The Iowa DOT also reserves the right to accept that bid which is deemed to be in the best interests of the state. Any unauthorized changes, additions, or conditional bids including any ties to another bid or proposal or any reservations about accepting an award or entering into a contract, may result in rejection of the bid. Bids must remain available for award for thirty (30) days from date of bid opening.

Method of Award: Award shall be made to the lowest responsible, responsive bidder unless otherwise specified. By virtue of statutory authority preference will be given to products and provisions grown and coal produced within the State of Iowa.

Award Protests: Protests of award recommendations are to be addressed to the Director of Purchasing, and shall be made in accordance with paragraph 761--20.4(6)"e", Iowa Administrative Code.

Bid Results & Disclosure: A bid tabulation will be sent to all responsive bidders with an award recommendation indicated. At the conclusion of the selection process, the contents of all proposals will be placed in the public domain and be open to inspection by interested parties, according to state law. Trade secrets or proprietary information that are recognized as such and are protected by law may be withheld if clearly identified as such in the proposal.

Contracts: Successful contractor(s) may be sent either a formal Contract or a Notification of Award as confirmation of acceptance and award. Contracts shall be for the term stated on the Proposal and may be extended for additional period(s) under the same terms and conditions upon mutual agreement. The contractor may not assign the contract to another party without written authorization from the Office of Procurement and Distribution.

Pricing and Discount: Unit prices shown on the bid/proposal shall be quoted as the price per unit (e.g., gal., case, each, etc.) as stated on the request. If there is a discrepancy between the unit bid prices, extension, or total amount of bid, the unit prices shall prevail. Unless otherwise indicated, prices shall be firm for the duration of the contract or purchase. Discounts for early payment are allowed, but not considered in award of the contract.

Taxes: Prices quoted shall not include state or federal taxes from which the state is exempt. Exemption certificates will be furnished upon request.

Faxed bids will not be accepted.

Payment Terms: The Iowa DOT will normally pay properly submitted vendor invoices within fifteen (15) days of receipt, providing goods and/or services have been delivered, installed or inspected (if required), and accepted. Invoices presented for payment must be only for quantities received by the Iowa DOT, must reference the purchase order number, and be submitted for processing.

Quality: All material shall be new and of first quality. Items which are used, demonstrators, refurbished, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by the Iowa DOT.

Recycled Content: The Iowa Code encourages purchase of products and materials with recycled content, including but not limited to paper products, oils, plastic products, compost materials, aggregate, solvents, and rubber products. When bidding recycled items or alternatives, note on your bid the recycled content, if known.

Infringement: Goods shall be delivered free of the rightful claim of any third party by way of infringement. Contractor shall indemnify and save harmless the State of Iowa and the Iowa DOT against all claims for infringement of, and/or royalties claimed under, patents or copyrights on materials and equipment furnished under this bid.

Default: Failure of the contractor to adhere to specified delivery schedules or to promptly replace rejected materials shall render the contractor liable for all costs in excess of the contract price when alternate procurement is necessary. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of this contract.

Ames Deliveries: Materials delivered to the Distribution Center's Receiving Section, 800 Lincoln Way, Ames, IA shall be delivered between the hours of 7:30 a.m. and 3:30 p.m. on any day except Saturday, Sunday, or a holiday. For deliveries to locations other than the Distribution Center, the contractor may wish to contact the destination location for available times to deliver, as some Iowa DOT offices and locations work a non-standard work week.

Delivery: Deliveries shall be F.O.B. destination unless otherwise specified. All deliveries shall be accompanied by a packing slip indicated the vendor, quantities shipped, and the purchase order number(s). All delivery charges shall be included in the bid price and paid by the contractor. No collect or C.O.D. deliveries will be accepted. When entering into a contract, the contractor shall notify the freight company that all freight and delivery charges are to be prepaid by the contractor. The Iowa DOT will not be liable for any freight claims or unpaid freight bills arising from this contract.

Applicable Law: The contract shall be governed under the laws of the State of Iowa. The contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of this contract and which in any manner affect the work or its conduct. Any legal action relating to the contract shall only be commenced in the Story County, Iowa, District Court or the United States District Court for the Southern District of Iowa.

Administrative Rules: For Additional details on the rules governing the actions of the Office of Procurement and Distribution refer to 761 IAC, Chapter 20, Iowa Administrative Code, entitled "Procurement of Equipment, Materials, Supplies and Services".

Equal Opportunity: Firms submitting bids must be an "Equal Opportunity Employer" as defined in the Civil Rights Act of 1964 and in Iowa Executive Order Number Thirty-four.

Affirmative Action: The contractor (and also subcontractor, vendor, or supplier) is prohibited from engaging in discriminatory employment practices forbidden by federal and state law, executive orders and rules of the Iowa Department of Management, pertaining to equal employment opportunity and affirmative action. Contractor may be required to have on file a copy of their affirmative action program, containing goal and time specifications. Contractors doing business with Iowa in excess of \$5,000 annually and employing 50 or more full time employees may be required to file with the Iowa Department of Management a copy of their affirmative action plan. Failure to fulfill these non-discrimination requirements may cause the contract to be canceled and the contractor declared ineligible for future state contracts or subject to other sanctions as provided by law or rule.

Targeted Small Businesses: The Iowa DOT seeks to provide opportunities for women and/or minority small business enterprises. To apply for certification as an Iowa Targeted Small Business, contact the Iowa Department of Inspection and Appeals (515-281-7357). Contractors shall take documented steps to encourage participation from Targeted Small Businesses for the purpose of subcontracting and supplying of materials.

Interest in Contract: No state or county official or employee, elective or appointive shall be directly or indirectly interested in any contract issued by the Iowa DOT, See Code of Iowa 314.2.

Records Audit: The contractor agrees that the Auditor of the State of Iowa or any authorized representative of the state, and where federal funds are involved, the Comptroller General of the U.S. Government, shall have access to and the right to examine, audit, excerpt, and transcribe any directly pertinent books, documents, papers, and records of the contractor relating to orders, invoices, or payments of this contract.

Iowa Department of Transportation
SUPPLEMENTAL TERMS & CONDITIONS
For
10|A38: Tool Carrier Wheel Loader
Proposal No.: 4356
Letting Date: December 23, 2009

Proposal Guarantee

Proposal guarantee is not required on this proposal.

Exceptions or Equals

Any equipment being offered as an equal to the specified make/model must be submitted on the enclosed form "Bidder's Request for Exceptions or Equal." The form must specifically state the requested equal and be accompanied by adequate supporting information to evaluate the request.

The "Bidder's Request for Exceptions or Equal" form must be received in sufficient time *prior* to the bid opening to evaluate and respond with the appropriate action. It is suggested that any requests for equal be submitted either by mail or fax immediately upon receipt of the proposal in order to receive full consideration. Fair treatment to all vendors shall be the primary concern in evaluation of requests for equal, particularly those submitted just prior to the bid opening. **Do not submit "Bidder's Request for Exception or Equal" with your bid.**

Separate Bids

A bidder may quote prices on more than one model. Complete a separate Schedule of Prices for each make/model bid.

Approved Brands

Brands listed have been pre-approved by the Iowa DOT. Equivalent brands may be bid, but if not previously tested may be subject to testing by the Iowa DOT prior to the award.

Product Literature

Two (2) complete sets of catalogs, specification sheets, or other literature giving detailed information about the item bid shall be included with the proposal. The items shall be identified in the literature by make/model name or number. Modifications or deviations from the printed literature or accessory items not covered shall be described by a written statement, unless included in the information supplied on the Detailed Information Sheet if included with this proposal.

Additional Information

If any additional information is required to properly evaluate the bid, the bidder shall furnish the requested information within three (3) working days after notification from the Office of Procurement and Distribution.

Ties and Reservations

No ties and reservations by the bidders are permitted on this proposal.

Contract Award

One contract will be awarded for all line item. Items are tied.

Contract Period

Only one (1) award will be made for the contract period.

Contract Quantities

The Iowa DOT will make a one-time purchase of the entire quantity listed on this proposal.

Purchase Orders

One purchase order will be issued for each Line item.

Delivery Location

Material shall be delivered to the Iowa Department of Transportation 800 Lincoln Way Ames, Iowa 50010.

Invoicing & Packing List

Each Packing list and invoice must reflect only the merchandise relating to one purchase order. Multiple orders may be shipped together but each order requires individual invoicing and packing list stating purchase order number.

(Vendor may copy as needed)

**Due on or Before
7 days before letting
date**

**If Required
Mail At Once**

Letting Date: December 23, 2009

**If Required
Mail At Once**

**Iowa Department of Transportation
Bidders Request for Exceptions or Equal
Proposal No.: 4356**

Item: 10|A38: Tool Carrier Wheel Loader

Spec. No. _____

Bid Proposal

Requests: _____

Bidder Proposes to furnish in lieu of above: _____

Mail/Fax to:

By _____

Iowa Department of Transportation
Attention: Jerry Giebelstein
Office of Procurement and Distribution
800 Lincoln Way
Ames, Iowa 50010
Phone No. 515-239-1347
Fax No. 515-239-1538
jerry.giebelstein@dot.iowa.gov

Company _____

Address _____

City State Zip Code

Phone No. _____

Fax No. _____

=====

DOT USE ONLY

Approved _____

Disapproved _____

Reason _____

Signature: _____

Date: _____

IOWA DEPARTMENT OF TRANSPORTATION
OFFICE OF PROCUREMENT AND DISTRIBUTION
EQUIPMENT SERVICES SECTION
SPECIFICATIONS
for
TYPICAL 2.5 YARD INDUSTRIAL TOOL CARRIER WHEEL LOADERS
25,500 TO 29,500 Pound Operating Weight

The following conditions and specifications shall apply to the purchase of nominal 2.5 yd³ SAE heaped bucket capacity tool carrier wheel loaders, with published typical operating weights from 25,500 to 29,500 pounds. Tool carrier shall be a standard and expected size/type industrial 4-wheel drive on pneumatic tire design with articulating frame. Proposed machine shall be suitable for all aspects of use required in a northern state highway maintenance operation, including but not limited to: lift heights and capacities suitable for loading any Department snow removal truck with ice and snow control materials such as salt and sand, acting as a carrier for a self-powered snow blower attachment, leveling of earth and aggregate surfaces, material handling, other mounted tool use, and digging. All component parts shall be of proper size, designed to insure long machine life and safely withstand maximum stresses imposed by capacity usage.

1. GENERAL TERMS & CONDITIONS

- A. Proposed tool carrier loader shall be a current model under standard production, being marketed on a national level. All standard equipment as listed in literature and/or specification sheets shall be provided and included in the quoted price. Dealer or vendor modifications to non-conforming equipment for the express purpose of meeting minimum requirements is not acceptable.
- B. Machine shall be completely assembled, serviced and ready for immediate operation upon delivery to the Department.
- C. The following tool carrier loaders are known as generally suitable in size for bid on these specifications. However, inclusion in this list is not a guarantee of final machine acceptance nor should it be construed as an approved equal list.
 - Caterpillar 924H
 - Volvo L60F
 - Hyundai HL740TM-7A
 - Doosan DL200TC
 - Kawasaki 65TMV-2
 - Case 621E XT
 - JCB 426 HT
- D. All other brands and/or items to be bid differently than requested in the specifications will require review and approval from Equipment Services. Vendor shall submit such requests on the Exception and Approved Equal Request form according to the guidelines established in the bid package. See "Supplemental Terms and Conditions" under "Exceptions or Equals" for more details. Please include all literature and all detailed technical data needed to support such a request.
- E. Vendor shall be a franchised dealership for the brand(s) they propose. They must have a full service facility in the State of Iowa where mobile and in-house repair services, parts, accessories, and technical help are readily available. Technicians and support personnel must be certified and trained in all aspects of maintenance and repair of the proposed machine.

- F. Final approval of any vendor or manufacturer's equipment may require a demonstration, current user list, and/or tour of their facility to determine compliance and acceptability. Vendors shall make available, upon request and within one week of notification by the Department, any or all of the following:
 - 1. A demonstration machine. A typical and similar same model machine shall be provided to the Department for a minimum 2-working days unimpeded use and evaluation. Demonstration will be at a Department Maintenance Facility; equipment will be operated by Department personnel.
 - 2. Name, address, and phone number of other customers using the same equipment within the State of Iowa that can be contacted and a facility visit arranged. Purpose will be to see the machine operate in a working environment and talk to the operators and/or owners.
 - 3. A facility tour. Vendor shall provide a list of suitable times to the Department within regular daytime work hours when an inspection tour of their sales and service facility would be convenient.
- G. All costs associated with providing any or all these items are the sole responsibility of the vendor. Inability to comply with any or all will be adequate reason for bid rejection.
- H. The Department reserves the right to reject, without reservation and in our opinion, any equipment it deems:
 - 1. Not capable of conveniently and/or economically performing the work required.
 - 2. Does not have an adequate service and support infrastructure in place within the State of Iowa to provide continuing long term service and support for the product being proposed.
- I. The Department of Transportation reserves the right to waive compliance on minor technicalities on this specification; to reject any or all bids; and to accept that bid which, in the opinion of the Department, is in the best interest of the State.
- J. All ratings, dimensions, weights, operating systems, and other applicable apparatus shall be according to/in compliance with ISO/SAE Standards for Construction and Industrial Equipment.

2. GENERAL

- A. Minimum 129 net horsepower.
- B. Published standard operating weight of 25,500 to 29,500 lbs.
- C. Minimum wheelbase 110 inches.
- D. Equipped with ACS (American Coupler Systems) Pro Series 2000 Size 30 quick implement attachment system. BASE BID SHALL BE FOR TOOL CARRIER EQUIPPED WITH COUPLER ONLY - ALL BUCKET & ATTACHMENT COSTS SHALL BE BID SEPARATELY. SEE OPTIONAL EQUIPMENT SECTIONS.
- E. Minimum published standard bucket ranges/performance. For the purpose of evaluation, the following dimensions will apply.
 - 1. Bucket, nominal 2.5 yd³ SAE heaped capacity (minimum 2.25 yd³ SAE rated struck).
 - 2. Breakout force rating, minimum 18,030 lbs.
 - 3. Lift height to bucket hinge pin minimum 12 feet 7 inches.
 - 4. Bucket clearance at full height, dumped at 45°, minimum 9 feet 0 inches.
 - 5. Bucket reach at 7 feet clearance, dumped at 45°, minimum 54 inches.
 - 6. Bucket reach at full height, minimum 36 inches.

7. Digging depth bucket flat minimum 2 inches.

3. ENGINE

- A. Engine shall be a heavy duty liquid cooled high torque 4-stroke industrial diesel with a minimum 6-cylinders displacing a minimum 348 in³, rated at a minimum 129 NET Hp @ 401 lb/ft NET torque at manufacturer's rated RPM per SAE J1349.
- B. Required engine manufacturer's engine performance data sheet. Vendor must submit a copy of the engine manufacturer's engine performance data certification sheet along with the other literature required with this bid. It must state exact engine gross and net horsepower, exact engine gross and net torque, and exact engine start-up torque (commonly called clutch engagement torque - usually at 800 RPM) as well as rated engine fuel usage in GPH (gallons per hour). All details must be provided in US English units.
- C. Engine air intake shall be a dry two stage design with dual filter (primary/secondary) elements and vacuator valve. Intake system shall be equipped with an air filter restriction indicator as an integral part of the machine's engine monitoring system. If not available as part of the monitor system, a mechanical graduated restriction indicator (Filter Minder 3781-425 or Donaldson Lock-up Service Gauge RAX00-5806) must be installed in the cab instrument panel.
- D. Air intake system shall be equipped with a self-cleaning self-powered centrifugal air intake pre-cleaner, such as those manufactured by Turbo or Centri. Donaldson acrylic dust-bowl is not acceptable.
- E. Radiator shall be manufacturer's largest capacity. Anti-freeze shall test -35°F.
- F. Engine oil filter shall be a spin-on throw away type.
- G. Regenerative charging system with highest amperage output alternator available. If an optional high output alternator is available, it must be provided. Likewise, the battery(s) must also be the largest CCA available, if optional higher CCA battery(s) are available, they must be provided.

4. CHASSIS

- A. Machine must have a published SAE standard operating weight of 25,500 to 29,500 lbs. Published means as it appears on the front of or in the standard literature with general purpose bucket with edge and without any optional equipment.
- B. Lift system must be a high visibility dual arm/dual cylinder tool carrier design. Z-bar linkage lift systems of any type are not acceptable.
- C. Published tipping load, straight without optional counterweights, minimum 16,950 lbs.
- D. Published tipping load, full turn without optional counterweights, minimum 14,660 lbs.
- E. Operator shall be able to maintain bucket rotation control with a full heaped bucket of wet fine sand (3,375 lb. cubic yard) regardless of load height. Tool carrier shall be able to maintain implement rotation control of a minimum 6,000 lb. pallet with the pallet fork attachment. These requirements will be with a tool carrier meeting these specifications, outfitted with the specified quick coupler system and specified standard bucket and pallet fork attachment. Vendor may be required to demonstrate the ability of a proposed tool carrier to meet this minimum load control requirement prior to being awarded a contract.
- F. Wheelbase, minimum 110 inches.
- G. Published top speed, minimum 23.6 MPH.
- H. Ground drive system shall employ either 1) a torque converter with full power shift multi-speed transmission; OR 2) a full hydrostatic transmission with 4 ranges and inching feature. Transmission system shall be equipped with an easily serviced filter with dash mounted condition indicator.

- I. Tool carrier shall be equipped with hydraulic articulation power steering.
- J. Brakes shall be power assisted hydraulic 4-wheel wet disc.
 - 1. If the machine transmission is a torque converter powershift, a transmission disconnect feature shall be incorporated into the brake system, operated by a single brake pedal if the tool carrier is so equipped; or by the left pedal of a two brake pedal system.
 - 2. If the machine is equipped with hydrostatic drive that will dynamically brake the machine, the disconnect is not required.
- K. Tool carrier shall be equipped with a parking brake. Parking brake shall not allow the transmission to be engaged or include an audible alarm and/or warning light to warn operator if transmission is engaged while parking brake is applied.
- L. Differentials shall be provided in one of the following three configurations.
 - 1. Torque proportioning front and rear.
 - 2. Limited slip front and rear.
 - 3. Front axle driver controlled differential lock and limited slip rear.
- M. Tires shall be L2/G2 tread radial 20.5R25, Michelin XTLA or pre-approved equal. Tires shall be readily available from national US tire distributors.
- N. Fuel tank shall have a minimum 45 US gallon capacity. Tank shall be outfitted with a lockable, tethered filler cap.

5. ACCESSORIES

- A. All engine and gear case oil cavities shall have magnetic drain plugs installed.
- B. Tool carrier shall be equipped with a swiveling pintle hook drawbar attachment rated no less than 6,000 lb. vertical tongue weight/30,000 lb. trailer GVWR, with the working hook face mounter 28-32 inches from ground level (no exceptions). Known acceptable pintle hitch is a Premier 135NT Swivel Coupling. Dealer manufactured attachment bracket shall be of high quality, indistinguishable from an OEM component.
- C. Tool carrier shall be outfitted with an automatic adjustable bucket leveling device capable of automatically positioning the bucket for the next loading pass and with automatic (boom kick out) bucket height control.
- D. Horn(s), minimum rating 100 dB(A) at 5 feet.
- E. Fenders front and rear.
- F. Electronic back-up alarm, automatic volume adjustment ranging from 82-107 dB(A), Ecco Smart Alarm model SA901 or approved equal.
- G. Full exterior anti-vandalism panel package, to include at a minimum full engine compartment panels that bolt-on, equipped with lockable hinged access doors for normal service checks, minor adjustments, replenishment of lubricants, coolant and other fluids and air filter maintenance.

6. CAB

- A. Full vision all weather ROPS cab, fabricated to be an integral part of the tool carrier. Cab shall be of all metal construction with minimum 1 inch thick polyfoam or approved equal roof insulation.
- B. All glass shall be tinted safety.
- C. Cab entrance door(s) shall swing open and latch at minimum of 90 degrees from the cab side. All available operable glass and/or vent panels must be provided.
- D. Cab door(s) shall be equipped with a key lock.

- E. Cab entrance steps/ladder shall have adequate exterior grab handle(s) / bar(s) to allow easy and sure access.
- F. A pair of west coaster mirrors shall be mounted on the cab, one per side.
- G. Ignition switch shall be an automotive key lock type.
- H. All electric powered accessories shall be same voltage as the electrical regenerative charging system.
- I. Cab shall be equipped with a lighted instrument/control panel. Panel shall contain instruments to monitor, at a minimum, the following functions.
 - 1. Regenerative charging system.
 - 2. Engine oil pressure.
 - 3. Engine coolant temperature.
 - 4. Fuel tank level.
 - 5. Transmission/Converter fluid temperature.
 - 6. Transmission filter indicator if available.
 - 7. Hourmeter, electronic. Manufacturer's standard if wired to an oil pressure sensor switch or excited by the alternator (a true hours-of-operation figure is required). If unavailable, a Hobbs No. 15001-2 hourmeter must be installed and powered with an engine excited switch as above.
- J. The Department requires an automatic engine warning system for high engine coolant temperature and/or low oil pressure. System requires warning lamps and/or audible alarms.
- K. Full factory HVAC system, to include circulating engine coolant cab heater, defroster, and air conditioning. Defroster ducts shall be easily aimed where desired, able to defrost all cab glass. Coolant lines shall contain shut-off valve(s) at the engine.
- L. Auxiliary 2-speed fan with swivel base. Suitable to aid defrosting air circulation in winter. Napa 745-1106 12 volt, 745-1098 24 volt, or equal.
- M. Windshield wipers, front minimum 2-speed with electric windshield washer, rear minimum 1-speed.
- N. Deluxe suspension seat, adjustable fore and aft and up and down with retractable seat belt. Belt must be retractable to keep it off floor and out of dirt.

7. LIGHTING

- A. Tool carrier shall be equipped with a United States legal road travel lighting package. Package shall be in compliance with all FMCSA and State of Iowa on-road use illumination requirements for both day and night travel.
- B. The following minimum lamps shall be installed. Switches shall be clearly identified and mounted in the control panel.
 - 1. Four (4) front and two (2) rear work/travel lamps. Front lamps shall be mounted two at a point mid-way up the tool carrier front (such as on the fenders) and two flush with (no higher than) the top of the cab roof-line. All four front lamps shall be activated by a common switch.
 - 2. Two (2) combination tail/stop lamps.
 - 3. Turn/hazard warning lamps.
- C. Vendors shall provide and install an ECCO 5280A LED dual reflector revolving light bar onto a cab mounted 7" x 12" steel flip-over bracket. To locate nearest ECCO dealer go to www.eccolink.com. Light must be same voltage as machine. Flip-over bracket is needed to allow tool carrier access through low clearance doors and also to protect light in brushy areas.

1. Bracket shall be of high quality construction, barely distinguishable from an OEM installation. It must be mounted on the rear of the cab and as close to centered as practical.
2. Wiring for the light bar shall be the OEM factory beacon wiring less the OEM light. The factory 2-conductor (power/ground) circuit shall be of adequate amperage capacity to power the above referenced light bar. Circuit shall be an always hot (battery circuit), properly fused for protection and of the same voltage as the regenerative system. The light bar shall be ON/OFF switched through the factory control panel mounted OEM beacon switch. Dealer installed wiring and switch are not acceptable.
3. Bracket shall be designed so when revolving lamp is flipped over it will not bang against the tool carrier cab or glass, design must incorporate a positive stop bumper. When in either position, light shall be positively locked or retained in that position to prevent it from banging around or accidentally flipping over during machine use.

8. IMPLEMENT QUICK COUPLER SYSTEM

- A. Tool carrier lift mechanism shall be equipped with an implement quick coupler system. Specified system shall be a self-aligning, single point pickup design to allow quick change of attachment to other attachments equipped with a like female coupler half.
- B. For commonality, the Department requires that the coupler system be an ACS (American Coupler Systems) brand series 2000 size 30. Alternative coupler systems are not acceptable.
- C. Coupler system shall include one male coupler half installed on the tool carrier and one female coupler half installed on the bucket or other implement attachment.
- D. System shall employ a hydraulic 2-pin implement locking mechanism, easily actuated from the tool carrier cab.
- E. Control of the coupler lock pins shall not be tied into any other hydraulic function, such as the pilot pressure circuit, auxiliary hydraulic circuit, or requiring holding a button or other device and then rotating the bucket or cramping the steering. Pins must operate independently through their own dedicated electro/hydraulic valve and circuitry. Operation shall be by means of a separate independent engage/disengage OEM control switch in the cab switch panel. When disengaged the switch shall have an illuminated red indicator. System failure default shall leave the lock pins in the locked position.
- F. Coupler and/or bucket must be manufactured in a manner so that sand, salt or other debris cannot be trapped in pockets or compartments of the system, especially where the female half attaches to the bucket proper. If open areas exist, design shall have adequate clean-out accesses so debris can be easily seen and washed out.
- G. All coupler loader arm attachment pins shall be thoroughly coated with anti-seize compound upon it's installation, then thoroughly greased when installation is complete. Likewise, the implement attachment hydraulic lock pins must be thoroughly coated with anti-seize compound and thoroughly greased before delivery.

9. HYDRAULICS

- A. Hydraulic system shall be of adequate design and size to allow safe and convenient machine operation and a long life. All rams shall have fixed ferrules for pressure and return lines. Cylinder shafts shall be hard chrome plated.
- B. System shall be adequately filtered, employing at a minimum a suction screen and easily replaceable return filter.

- C. The Department prefers a single control lever system for bucket lift, lower, rotation and dump; such a system must be provided if not standard and listed as optional equipment. Other bucket control systems will be considered but must be reviewed and pre-approved by Equipment Services prior to bid opening. All controls must be clearly marked showing operation.
- D. Tool carrier shall be equipped with a dual function auxiliary third valve, capable of providing a minimum of two (2) factory installed hydraulic implement circuits. Circuits shall be suitable to power and operate all typical coupler mounted attachments, to include but not limited to a scrap grapple bucket, a 4-in-1 bucket, a rotary broom attachment, a hydraulic pavement breaker, or a pickup sweeper attachment with motor and cylinder requirements (like a model LLB manufactured by M-B Company of New Holstein, WI).
- E. Circuits shall provide a: 1) detented or positive switched on/of motor capability; and 2) selectable cylinder operation, preferably controlled as a second function of the x-axis of the same lever control as the bucket. All required fluid lines shall be ran to the front of the boom arms, there terminated and capped (the Department will install quick couplers).
- F. Optional equipment installed by the successful vendor, such as the quick coupler system, shall be installed in a workmanlike manner. Hydraulic components shall be installed in a permanent manner; hoses and lines shall be firmly attached and ran in a non-interfering manner.

10. TRAINING

- A. The successful contractor shall make available to the Department the services of a factory authorized training/service representative. Representative is to provide up to one day of service/safety/ operational training at each Department field maintenance facility assigned a new tool carrier.
- B. Training shall be completed within 30 days of each machine's field delivery date. Any training materials, such as booklets or video tapes used in the training shall be abandoned to the Department at each training location.
- C. Maintenance facilities scheduled to receive a new tool carrier include: LeMars, Oskaloosa, Muscatine, Coralville, and Anamosa. The Department reserves the right to add, change or delete assignment locations to meet critical needs.

11. PAINT

Manufacturer's standard paint scheme and color is acceptable.

12. WARRANTY

- A. Each tool carrier shall be covered under warranty for a minimum of one year or 1,500 hours of operation. If the manufacturer's standard warranty exceeds this, the standard warranty shall apply.
- B. Successful vendor shall make arrangements for a minimum one-half working day of tool carrier inspection, service checks, adjustments and if necessary schedule and complete any repairs within 60 days prior to the expiration of the warranty. All services shall be preformed at the Department's field maintenance facility where the tool carrier is assigned and normally housed unless the extent of a warranty repair makes this impractical.

13. SERVICE & REPAIR MANUALS

- A. Ten (10) full and complete sets of manuals shall be provided with these tool carriers, to be delivered with the first unit. Each tool carrier (5) shall be provided with a complete set of manuals; the additional five (5) shall be delivered to Equipment Services.
- B. A typical set will at a minimum include an operator's manual, a complete parts manual and complete troubleshooting and repair manual, with wiring diagrams. Sets shall be all inclusive, including complete engine and hydraulic component sets and all equipment (such as the quick coupler and bucket) installed by the dealer.
- C. Manual sets on CD are acceptable to the Department as long as they are identical to the paper sets. CD's must be searchable.
- D. Sets shall be bound / boxed into collated identical sets, marked with the location name and ready for distribution by the Department. The Department will not accept loose pages and/or unbound sets that we have to collate.
- E. If any type of electronic service program or application software is required to diagnosis and/or retrieve fault or diagnostic features/codes from the proposed machines a full and complete software package must be provided with each set of manuals. Software must be suitable for use on a Department laptop computer with Windows® XP operating system.

14. FIRST SERVICE SUPPORT KIT

A complete set of all OEM factory replacement filters and/or elements necessary to service the tool carrier shall be provided with each machine at the time of delivery. Kit shall include all fluid and air filters, including HVAC if so equipped. Sets shall be bound / boxed into collated identical sets, marked with the location name and in the cab of each machine. The Department will not accept loose filters and/or unbound sets that we have to identify, separate and collate.

OPTIONAL EQUIPMENT THAT MAY BE REQUIRED

Option No. A38.1: 2.5 yd³ SAE heaped capacity bucket (minimum 2.25 yd³ SAE struck capacity)

Vendor shall bid the complete additional optional cost per machine to provide a 2.5 yd³ SAE heaped capacity (minimum 2.25 yd³ SAE struck capacity without edge) general purpose bucket attachment. Bucket width shall not be less than widest part of machine nor more than 6 inches wider than the widest part. Overall width not to exceed 102 inches. Bucket shall be provided with a one-piece bolt-on reversible cutting edge installed. Bucket shall be outfitted with three evenly spaced chain lift notches or hooks along it's top. They shall be located one centered and the other two approximately 1/3 of it's length in from bucket end at a structurally suitable point; they shall be at a minimum rated for the lift capacity of tool carrier. Bucket and/or coupler half must be manufactured in a manner so that sand, salt or other debris cannot be trapped in pockets or compartments of the system, especially where the female half attaches to the bucket proper. If open areas exist, design shall have adequate clean-out accesses so debris can be easily seen and washed out. Assembly shall be installed on a matching ACS (American Coupler Systems) series 2000 size 30 coupler female half. The Department reserves the right to purchase this option as a stand-alone item for use on existing loaders in our inventory.

Option No. A38.2: Fork Attachment

Vendors shall bid the complete additional optional cost per machine to provide a 8,000 lb. fork attachment. Fork tines shall be 48 inches long by 5 inches wide by 2 inches thick, installed on a 60 inch slide mechanism, allowing width adjustment. Forks shall lock in numerous positions along the 60 inch slide length. Assembly shall be installed on a matching ACS (American Coupler Systems) series 2000 size 30 coupler female half. The Department reserves the right to purchase this option as a stand-alone item for use on existing loaders in our inventory.

Option No. A38.3: Scrap Grapple Bucket

Vendor shall bid the complete additional optional cost per machine to provide a 2.5 yd³ scrap grapple bucket attachment suitable for grabbing and loading brush and tire scraps. Bucket shall have open tines and include a bolt-on cutting edge. Overall width not to exceed 102 inches. Bucket shall be installed on a matching ACS (American Coupler Systems) series 2000 size 30 coupler female half. If any additional hydraulics must be ordered or installed on the specified machine(s), the additional cost shall be noted in the appropriate line on the schedule of prices. The Department reserves the right to purchase this option as a stand-alone item for use on existing loaders in our inventory.

Bidder _____

SEALED BID

LETTING DATE: Wednesday, December 23, 2009

PROPOSAL NO: 4356

PROPOSAL DESCRIPTION: 10|A38:HD Tool Carrier Wheel Loader 2.5 yd
Capacity

Iowa Department of Transportation
PURCHASING - SEALED BID PROPOSAL
800 Lincoln Way
Ames, IA 50010